

## HETEROPTERA RECENTLY COLLECTED IN THE RAY MOUNTAINS IN ALASKA

Richard C. Froeschner and Libby Halpin

*Abstract.*—This report on a collection of Heteroptera from the Ray Mountains in Alaska includes a brief description of the areas collected, and contains a list of 18 species (in seven families), including 4 apparent “first records” for the state.

---

The Ray Mountains are located in interior Alaska, approximately 240 km (150 mi) northwest of Fairbanks and 80 km (50 mi) south of the Arctic Circle. The range is situated between the Yukon and Koyukuk Rivers. It trends northwest and is roughly 105 km long (65 mi) and 35 km wide (22 mi). The topography is diverse with most of the area between 457–1219 m (1500–4000 ft) elevation though several peaks exceed 1544 m (5000 ft) including Mount Tozi, the highest at 1682 m (5519 ft).

The range is well characterized as an “island” of subarctic alpine tundra surrounded by a “sea” of boreal forest. The study area was defined roughly to include all of the area above treeline (generally near 610 m [2000 ft]) as well as the forested floodplains and their adjacent forested slopes that finger up into the range.

The vegetation of the range represents a variety of arctic and alpine, and boreal forest communities. On floodplains of major streams open evergreen, deciduous, and mixed forests are present. At elevations above, treeline forests give way to willow scrub communities. Over the rolling lowlands of the range, tussock graminoid meadow and dwarf scrub tussock-graminoid meadow communities dominate. In the higher valleys, dwarf scrub communities are most prevalent, while in the highest parts of the range prostrate scrubs and barrens predominate (Brock and Burke, 1980; Schubert, 1980). See Table 1 for descriptions of localities in which collections were made.

During the summer of 1979 L. Halpin collected 39 specimens of terrestrial Heteroptera (including four unidentifiable nymphs of the family Miridae) in a study area in the Ray Mountains of Alaska. This collection of 18 species is of more than casual interest because it includes four species (indicated by asterisks) for which we have found no previous Alaskan records.

This paper treats the Heteroptera collected during a study of the Ray Mountains, Alaska, under National Science Foundation Grant No. SPI-795346.

Table 1.—Description of insect collecting localities.

Locality	Average elev.	Latitude, longitude	Ecosystem type(s)	Collecting dates (all in 1979)
Crash Creek	580 m	65°39'N	Lowland tundra	Aug. 12–13
	1900 ft	150°52'W		
Kilo Hot Springs	488 m	65°49'N	Boreal forest	Aug. 4–7
	1600 ft	151°14'W		
Lake 1485	452 m	65°52'N	Lowland tundra	July 18; Aug. 1
	1485 ft	151°24'W		
Lower Torment Cr.	580 m	65°49'N	Lowland tundra	June 24–July 26; July 19–23; Aug. 2–3
	1900 ft	151°26'W	Boreal forest	
Moose Cr. Hdwtrs.	610 m	65°36'N	Lowland tundra	Aug. 15
	2000 ft	150°40'W	Boreal forest	
Mt. Tozi Summit	1683 m	65°41'N	Alpine barren	Aug. 11
	5519 ft	150°56'W		
Spooky Valley	763 m	65°43'N	Upland tundra	July 8–11; Aug. 8–9
	2500 ft	151°13'W	Alpine barren	
Tozitna River	580 m	65°38'N	Boreal forest	Aug. 14
	1900 ft	150°46'W		
Twilight Cr. Trib.	824 m	65°40'N	Upland/lowland	Aug. 11
	2700 ft	150°56'W	tundra ecotone	
Upper Torment Cr.	854 m	65°46'N	Upland tundra	July 24–30
	2800 ft	151°31'W	Alpine barren	

## Acanthosomatidae

\**Elasmucha lateralis* (Say). Lower Torment Creek, July 29, 1 ♂; Moose Creek Headwaters, August 15, 1 ♂, 1 ♀, 2 5th instar nymphs. Adults and nymphs are strongly infuscated, one male so much so that it appears almost totally black to the unaided eye. Several apparently previously unreported specimens from Fairbanks, Alaska, are in the National Museum of Natural History.

## Anthocoridae

*Anthocoris melanocerus* Reuter. Spooky Valley, August 8, 1 ♂; Tozitna, August 14, 1 ♀.

## Lygaeidae

\**Geocoris bullatus* (Say). Moose Creek Headwaters, August 15, 1 ♀. Widely distributed in North America, this species was previously cataloged as far northwest as the Yukon in Canada.

*Ligyrocoris sylvestris* (Linnaeus). Kilo Hot Springs, August 16, 1 ♀.

## Miridae

- Calocoris fulvamaculatus* (De Geer). Crash Creek, August 12, 1 ♂; Lower Torment Creek, August 3, 1 ♂.
- Lygocoris contaminatus* (Fallen). Lake 1485, July 18, 2 ♀♀; Lower Torment Creek, June 29, 1 ♂; Kilo Hot Springs, August 13, 1 ♀.
- Lygus columbiensis* Knight. Mt. Tozi Summit, August 11, 1 ♂, 1 ♀; Twilight Creek Tributary, August 11, 1 ♂.
- Lygus varius* Knight. Moose Creek Headwaters, August 15, 1 ♂; Twilight Creek Tributary, August 11, 1 ♂.
- Mecomma gilvipes* (Stal). Kilo Hot Springs, August 5, 1 ♂.
- Orthotylus katmai* Knight. Twilight Creek Tributary, August 11, 1 ♀.
- Plagiognathus obscurus* Uhler. Lower Current Creek, August 3, 1 ♀.
- Polymerus unifasciatus* (Fabricius). Tozitna River, August 14, 1 ♀. This is the color form with the entire clavus and much of the corium blackened.
- Trigonotylus ruficornis* (Geoffroy). Twilight Creek Tributary, August 11, 1 ♀.
- Teratocoris caricis* Kirkaldy. Twilight Creek Tributary, August 11, 1 ♀.

## Nabidae

- \**Dolichonabis americolimbatus* (Carayon). Lake 1485, August 1, 1 ♂, 2 ♀♀, 1 nymph, latter determined by association with adults. These new records partially fill the gap between the formerly known North American range and the disjunct occurrence in eastern Asia as reported by Kerzhner (1969:521). Such a range suggests a natural migration through Beringia—whether eastward or westward is not yet clear.

## Saldidae

- Teloleuca pellucens* (Fabricius). Lower Torment Creek, June 29, 1 ♀.

## Scutelleridae

- \**Homaemus aeneifrons* (Say). Lower Torment Creek, June 29, 1 ♀; July 29, 1 nymph. Absence of a male prevents confident subspecies determination of these specimens, but they quite probably represent Walley's (1929:256) western subspecies *H. aeneifrons extensus* which was originally described from western North America from Canadian Northwest Territories south to Colorado.

## Literature Cited

- Brock, S., and I. Burke. 1980. Vegetation.—In N. Farquhar and J. Schubert (eds.), Ray Mountains, Central Alaska: Environmental Analysis and Resources Statement, Middlebury College Press. (In press.)

- Kerzhner, I. M. 1969. New and little known Palearctic bugs of the family Nabidae (Heteroptera).—*Entom. Review* 47(4):517–525 [English Translation from the Russian, *Entom. Oboz.* 47(4):848–863].
- Schubert, J. 1980. Ecosystems.—*In* N. Farquhar and J. Schubert (eds.), *Ray Mountains, Central Alaska: Environmental Analysis and Resources Statement*, Middlebury College Press. (In press.)
- Walley, G. S. 1929. Notes on *Homaemus* with a key to the species (Hemip., Scutelleridae).—*Canadian Entom.* 61(11):253–256.

(RCF) Department of Entomology, Smithsonian Institution, Washington, D.C. 20560; (LH) United States Fish and Wildlife Western Alaska Ecological Services, 733 W. 4th Ave., Suite 101, Anchorage, Alaska 99501.